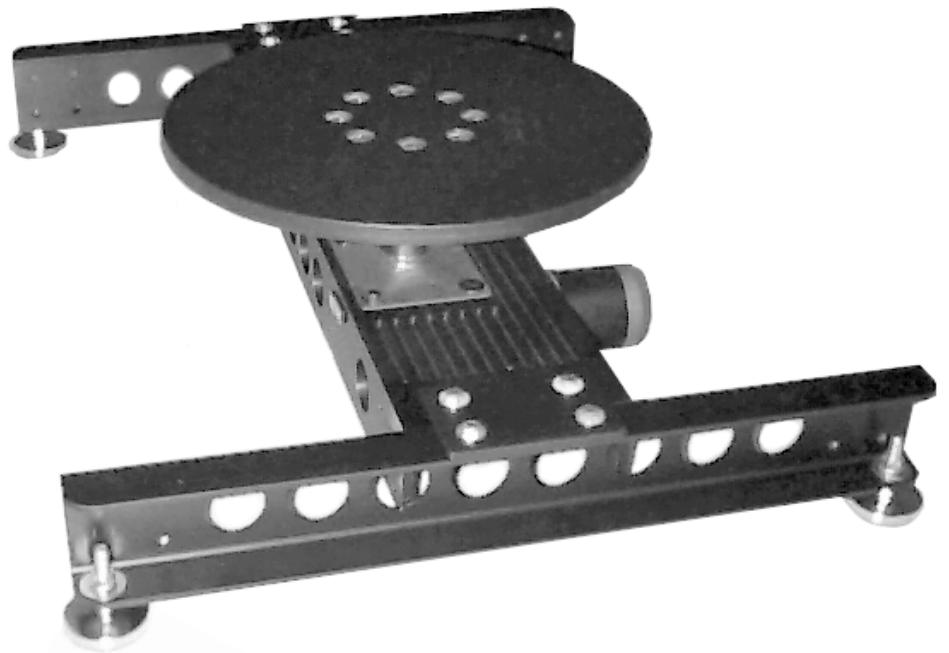


KAJIDAN

Meridian TM-400™

User's Guide



**Motorized Turntable
for Rotational Object
Photography**

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Kaidan Warranty and Return Policy

A • Limited Warranty

In the event of a defect in materials or workmanship, Kaidan will repair the product with new or rebuilt parts for a period of three-hundred and sixty five (365) days from the date of original purchase. Such work will be performed free of charge. Follow the Product Return Procedure (Section D following).

Likewise, any software purchased from Kaidan also comes with a one year warranty if your disc or media is defective or damaged. This warranty is extended only to the original purchaser and is not transferable. A purchase receipt or other proof of original purchase will be required before warranty performance is rendered.

This warranty only covers failures due to defects in materials or workmanship which occur during normal use. It does not cover damages or failures which are caused from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, modification, service by anyone other than an authorized representative of Kaidan, Acts of God, or by products not supplied by Kaidan.

This warranty covers any damage incurred during original shipment of product to customer. Any item resold, or distributed by, and not explicitly manufactured by Kaidan will be covered by their respective company's product warranty.

B • Warranty Exclusions

There are no express warranties except as listed above.

Kaidan shall not be liable for special, incidental, consequential or punitive damages, including, without limitation, loss of goodwill, profits or revenue, loss of the use of this product or any associated equipment, cost of substitute equipment, downtime costs, or claims of any party dealing with buyer for such damages, resulting from use of this product or arising from breach of warranty or contract, negligence, or any other legal theory.

All express and implied warranties, including the warranties of merchantability and fitness for a particular purpose, are limited to the applicable warranty period set forth above. Some states do not allow the exclusion or limitation of consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you.

This warranty and any claims which arise with the Kaidan product(s) are governed by the laws of the state of Pennsylvania. By purchasing this product, customer acknowledges and agrees to these Limits and Exclusions. If a problem with your Kaidan product develops during the warranty period, immediately contact Kaidan for assistance.

C • Product Return Policy

All Kaidan products come with a 30-day return policy (a minimum 10 percent re-stocking fees will apply) from date of purchase, with the exception of software or videotapes.

Both of the aforementioned items are copyrighted and subject to the laws concerning intellectual property. Kaidan will replace defective software/videotapes free of charge upon return receipt of defective item(s). Products returned under this policy, excluding replacement of defective items, must be shipped at purchaser's expense. Purchaser must ship product with an approved traceable service, such as FedEx, and with appropriate levels of shipping insurance for the item being returned. Kaidan will not be held responsible for returned items lost or damaged in transit.

Kaidan will issue a refund to customer's account if the following conditions are satisfied:

1) Receipt of item(s) in a restockable condition.

Criteria for Restockable Condition is as follows:

- All parts are included in box; hardware, manuals, discs, nuts/bolts, tools.
- No signs of damage; scratches, bent parts, missing pieces, markings, alterations, or additions to the product.
- All packaging materials are intact; foam, peanuts, cardboard, bubble bags.
- No signs of excess usage or wear to the product.

Items of Non-restockable condition are subject to the following:

- Restocking Fee/s - a minimum of 10 percent and possible additional fees based on the condition of the product (how the product best meets the criteria

above), at Kaidan's discretion.

Non-Restockable Condition - constitutes the following:

- Missing parts; hardware, manuals, discs, nuts/bolts, tools, and packaging materials; foam, peanuts, cardboard, bubble bags.
- Signs of damage; scratches, bent parts, missing pieces, markings, alterations, additions to the product.
- Signs of excess usage or wear to the product.
- Damage or loss incurred during uninsured shipping to Kaidan. In this case, Kaidan cannot issue any type of refund. Customer will be responsible to submit claim with their shipping company.
- If damages occur in shipping, customer must submit claim with shipping company prior to any action by Kaidan.

Items Part of Special Bundle

If item(s) are part of a special bundle offer, return of part of the bundle will void any special pricing and the item(s) remaining in the possession of the customer will revert to their regular Suggested Retail Price (SRP). The credit, to customer, will reflect the difference of the actual product SRP from the amount of credit due customer.

Shipping Costs

All shipping costs, VAT, duties and return costs are sole responsibility of customer. If customer purchases thru Kaidan distributor or reseller, customer is responsible for all shipping and VAT costs incurred by that distributor or reseller. These charges are non-refundable.

For instructions on the return of your product, follow the Product Return Procedure below

D • Product Return Procedure

When returning a product, customer must first contact Kaidan (or the distributor/reseller) and obtain a Return Material Authorization Number (RMA#). After receiving the RMA#, customer will be instructed to return product directly to Kaidan. Returned goods must be shipped with an approved traceable service, such as FedEx, and with appropriate levels of shipping insurance for the item being returned. Kaidan will not be held responsible for returned items lost or damaged in transit. RMA numbers are valid for 15 days, and the product(s) must be received by Kaidan before the RMA expires. We are unable to accept for return any product(s) received after the expiration of the RMA.

Return Packaging

The product packaging must reflect customer name, address, RMA# as well as Kaidan information:

Kaidan Incorporated
703 E. Pennsylvania Blvd • Feasterville, PA 19053 • U.S.A.
Attention: Return Department per RMA# _____

Contact Information: Voice: 215-364-1778 • Fax: 215-322-4186
<http://www.kaidan.com> • E-mail: info@kaidan.com

Chapter 1

Assembling the TM-400

STEP A: UNPACKING THE BOXES

The components are detailed below. Please make sure that all parts are included. Examine the parts for any signs of shipping damage. In the event of shipping damage, immediately contact Kaidan, or your local distributor to process claims. If any items are missing or you notice any damage, call Kaidan at 215-364-1778, between the hours of 10:00 am and 6:00 PM, Mon-Fri, EST.

TM-400 PACKING LIST

Description (Item#)	Qty		
Box #1		Box#3	
Top support and gearbox ass'y (1 and 7)	1	18" turntable ass'y (20)	1
1/2" hub(Part of 7)	1	Shaft collar (13)	1
10-24 z 1/2" SHCS (10)	4	Motor (9)	1
		Motor Cable(Not Shown)	1
		Controller (Not Shown)	1
Box#2		3/8" hub (Part of 9)	1
Side channel support (2)	2	coupler (Part of 9)	1
Industrial glide (3)	4	eMCee software disk (Mac)	1
Ajustable pedestal ass'y (14,16,17,18 & 19)	1	eMCee software disk(Windows)	1
Shaft collar (13)	1	Serial Cable (Mac)	1
		Serial Cable (Windows)	1
		Sin 8a Serial Converter	1
		Power Cord	1
		RJ45 Cabling - 4'	1
		RJ45 Cabling - 6"	1
		Box#4	
		36" turntable ass'y (Not shown)	1

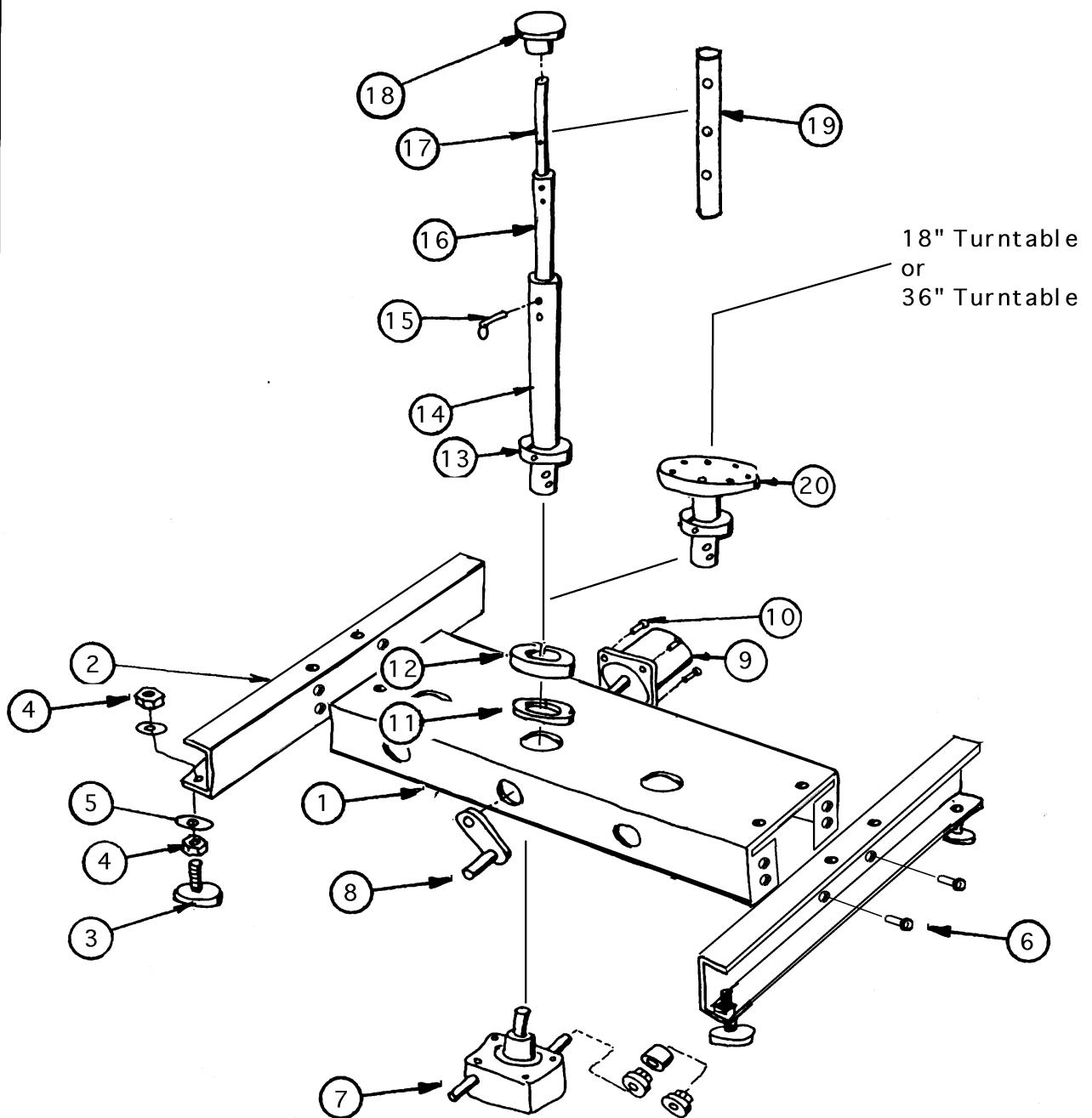
TM-400 Hardware List

<u>Hardware Package</u>	<u>Qty.</u>
99-1069 1/2-13 Jam Nuts	8.00
99-1070 1/2 Split Lock Washers	4.00
99-1071 1.5 ODx.5 ID FenderWshrs	8.00
99-1073 Industrial Glide	4.00
99-1116 Knob 3-Point, 1/4-20 Std	1.00
99-1028 3/32 Hex Wrench	1.00
99-1117 7/64 allen Wrench	1.00
99-2018 1/8 allen Wrench	1.00
99-2019 3/16 allen Wrench	1.00
99-2020 5/32 allen Wrench	1.00
99-2118 1/4 allen wrench	1.00
99-2119 5/16 allen wrench	1.00
99-2023 3/8 x 1 1/4 SHCS	8.00
99-2033 1/4 x 2 Hitch pins	2.00
99-2078 3/8 Split Lockwasher	8.00
99-2094 Ball Thrust Bearing/INA-455	1.00
82-4090 bearing spacer	1.00
99-2208 Hex Bolt 3/8-16 x 2.25 lg.	4.00
99-2134 3/8 SAE Washer	8.00
99-2209 3/8 Wing Nut	4.00

Chapter 1

STEP B: IDENTIFYING THE MERIDIAN TM-400 COMPONENTS.

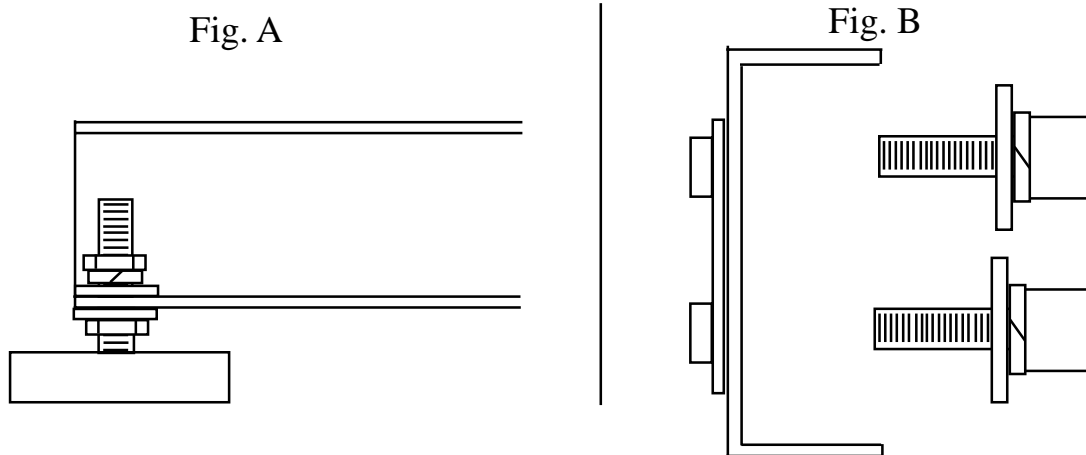
PLEASE REFER TO PACKING LIST FOR ITEM NUMBERS



Chapter 1

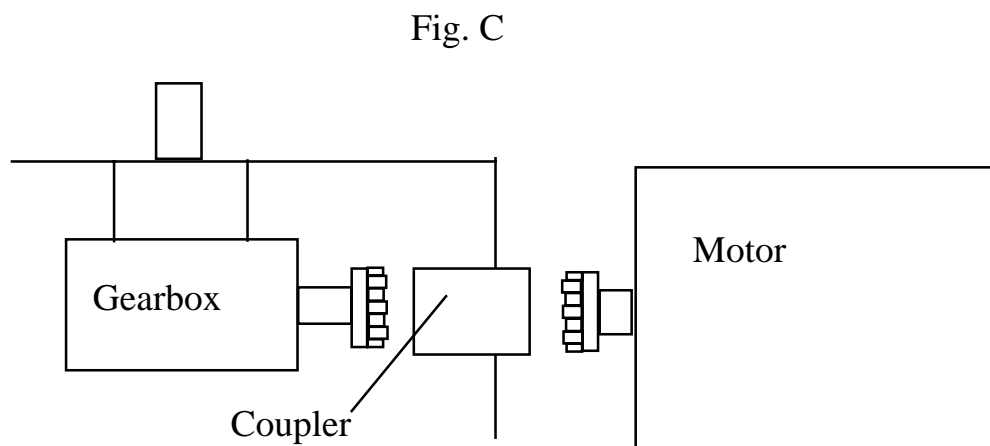
STEP C: ATTACHING THE SIDE SUPPORTS TO THE BASE

The side supports (Item #2) will accept the four industrial glides, two on each side. Attach them using the 1/2" flat washers, lock washers and nuts(Fig A). Once you have attached the industrial glides, each side support can be attached to either side of the base assembly. To attach the side supports use the 3/8 socket screws (Item 6) including a 3/8 flat & lockwashers(Fig B).



STEP D: ATTACHING MOTOR AND TO THE BASE

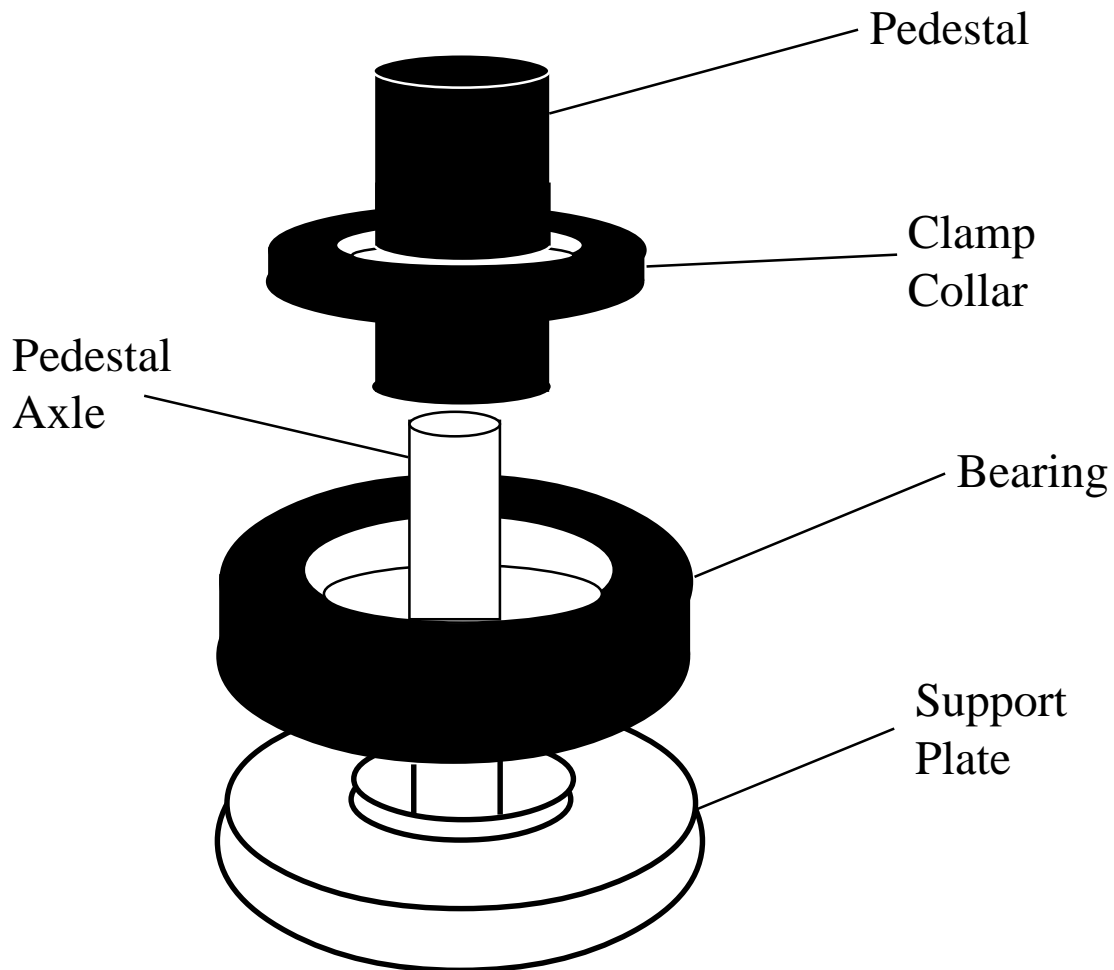
The motor(9) ships with the 3/8" hub and coupler attached. The coupler has grooves that will mate with the grooved hubs attached to the motor(9) and turntable gearbox(7). Remove and use the four 10-24 screws in the base assembly, attach the motor and align the coupler with the hubs.(Fig C) Take the motor cable and attach the appropriate end to the wire harness coming from the motor



STEP E: ATTACHING PEDESTAL / TURNTABLES

The pedestal and turntable assemblies for your Meridian TM-400 all use the same mounting system. The adjustable pedestal (14, 16, 17, 18, 19) and the 18" turntable base (20) are fitted with a clamp collar. The collar is designed to rest upon the large thrust bearing and support plate, which are placed "free floating" around the pedestal axle. (Fig D) The 36" turntable bolts to the 18" turntable using four 3/8-16 x 2 1/4 hexbolts, eight 3/8 flatwashers and four 3/8 wingnuts.

Fig. D



STEP F: USING THE ADJUSTABLE PEDESTAL

The adjustable pedestal can be adjusted into various heights using the two cotter pins (15) provided. The adjustable pedestal has a series of set screws for locking the pedestal into a fixed position, removing any lateral clearance needed for pedestal adjustment.

The top of the assembly is outfitted with single pedestal cap attached by a set screw. The pedestal cap has a 1/4-20 thread that can accept bolts, for attaching small platforms and/or objects.

(Note: For complete instructions on controller and software installation, consult software disk shipped

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This warranty covers any damage incurred during original shipment of product to customer.

Any item resold or distributed by and not explicitly manufactured by Kaidan will be covered by their respective company's product warranty.

Warranty Exclusions

There are no express warranties except as listed above.

K Aidan SHALL NOT BE LIABLE FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, INCLUDING, WITHOUT LIMITATION, LOSS OF GOODWILL, PROFITS OR REVENUE, LOSS OF THE USE OF THIS PRODUCT OR ANY ASSOCIATED EQUIPMENT, COST OF SUBSTITUTE EQUIPMENT, DOWNTIME COSTS, OR CLAIMS OF ANY PARTY DEALING WITH BUYER FOR SUCH DAMAGES, RESULTING FROM USE OF THIS PRODUCT OR ARISING FROM BREACH OF WARRANTY OR CONTRACT, NEGLIGENCE, OR ANY OTHER LEGAL THEORY. ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE APPLICABLE WARRANTY PERIOD SET FORTH ABOVE.

Some states do not allow the exclusion or limitation of consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you.

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Appendix A:

Troubleshooting eMCee™

THE eMCee SOFTWARE DOES NOT RECOGNIZE THE CONTROLLER?

The error message that the controller is not responding or that it is not a known controller indicates a “break” in the serial communications between eMCee and the hardware controller. Before troubleshooting the eMCee software, please make sure that all your connections between the computer and the hardware controller are properly setup. Follow thru the list below for the most common hardware checks:

- The Serial cable is plugged into the serial port.
- The DB-25 pin end of the Serial cable is plugged into the Sin8 converter (blue).
- The slide switch on the converter is in the “P” position.
- The one end of the flat RJ-45 cable is plugged into the Sin8 Converter.
- The other end of the flat RJ-45 cable is plugged into the serial input on the controller.

I HAVE CHECKED ALL MY SERIAL CONNECTIONS AND THE CONTROLLER STILL ISN'T RESPONDING?

Once you have checked your serial connections, a non-responding controller may be the result of the wrong serial port selection in the eMCee preferences. Please verify that the serial port which your cabling is plugged into is the same serial port selected in eMCee's preferences.

For Macintosh users: Under the Apple Menu go to Control Panels - AppleTalk. In the Apple Talk Control Panel, make sure that Appletalk is not trying to use the port eMCee is using. If the serial port is being used by AppleTalk, change the port or disable AppleTalk in the Chooser.

ApplePowerBooks: ApplePowerBooks have a combination Printer/Modem port. The eMCee software will only recognize the port when the Modem port is the selected serial port in eMCee's preferences. PowerBook users must also make AppleTalk inactive when using eMCee.

ALL MY CONNECTIONS AND PREFERENCES ARE SET BUT STILL THE CONTROLLER IS NOT RESPONDING?

Once you have verified that the controller connections are appropriate and that the preferences in eMCee are set for your configuration, if the controller will still not respond, the culprit in most cases, is a system extension conflict.

The eMCee software controls Kaidan hardware via a serial interface and in order for eMCee to function properly it must be able to gain solitary control of the serial port being used. System Extensions that monitor the serial ports for activity will deny eMCee solitary control of the serial port. Extensions like 3rd party print drivers or Palm Pilot's Hot Sync that are constantly running, will prevent eMCee accessing the serial port.

For Macintosh users: Under the Apple Menu, go to Control Panels - Extensions Manger. In the Extensions Manager, deselect the extensions that you want to disable. Restart your computer. If you are not sure of what extensions may be causing this problem, follow these directions. Go to the Apple Menu and select the Apple System Profiler. Create a new report, check off all boxes in the dialog window and email the report to support@kaidan.com.

For PC users: Uninstall the extensions that may be conflicting with eMCee and restart your computer. If you are still experiencing problems please get a profile of your system & drivers, and email it to support@kaidan.com.

EMCEE IS WORKING, BUT IT APPEARS THAT THE TURNTABLE/RIG IS NOT MOVING TO THE RIGHT POSITION?

If the motors are running under eMCee control but they appear not to be positioning properly, you may need to check the preferences of the eMCee software. eMCee ships with all Kaidan motorized products and there are different preference settings for each Kaidan model. The preferences for eMCee can be set by running the appropriate default setting script for your particular Kaidan product. The default setting scripts are located in the "Scripts" folder of your eMCee software package. You can also enter the preferences directly through eMCee's preferences panel, see chart below for values.

TM-400	<u>X-Axis</u>	<u>Y-Axis</u>	MT-84	<u>X-Axis</u>	<u>Y-Axis</u>
<u>Steps per Rev</u>	<u>20000</u>	<u>0</u>	<u>Steps per Rev</u>	<u>126033</u>	<u>0</u>
<u>Intial Velocity</u>	<u>100</u>	<u>0</u>	<u>Intial Velocity</u>	<u>250</u>	<u>0</u>
<u>Slew Velocity</u>	<u>500</u>	<u>0</u>	<u>Slew Velocity</u>	<u>300</u>	<u>0</u>
<u>Ramp Slope</u>	<u>10</u>	<u>0</u>	<u>Ramp Slope</u>	<u>20</u>	<u>0</u>
<u>Move Speeds</u>	<u>500</u>	<u>0</u>	<u>Move Speeds</u>	<u>300</u>	<u>0</u>
<u>Step Resolution</u>	<u>Full</u>	<u>0</u>	<u>Step Resolution</u>	<u>Full</u>	<u>0</u>
<hr/>					
C-60	<u>X-Axis</u>	<u>Y-Axis</u>	M-1501	<u>X-Axis</u>	<u>Y-Axis</u>
<u>Steps per Rev</u>	<u>20000</u>	<u>374810</u>	<u>Steps per Rev</u>	<u>12000</u>	<u>20000</u>
<u>Intial Velocity</u>	<u>100</u>	<u>100</u>	<u>Intial Velocity</u>	<u>100</u>	<u>100</u>
<u>Slew Velocity</u>	<u>500</u>	<u>700</u>	<u>Slew Velocity</u>	<u>500</u>	<u>300</u>
<u>Ramp Slope</u>	<u>15</u>	<u>15</u>	<u>Ramp Slope</u>	<u>10</u>	<u>10</u>
<u>Move Speeds</u>	<u>500</u>	<u>700</u>	<u>Move Speeds</u>	<u>500</u>	<u>300</u>
<u>Step Resolution</u>	<u>Full</u>		<u>Step Resolution</u>	<u>Full</u>	

MDT-19	<u>X-Axis</u>	<u>Y-Axis</u>
<u>Steps per Rev</u>	<u>14165*</u>	<u>0</u>
<u>Intial Velocity</u>	<u>100</u>	<u>0</u>
<u>Slew Velocity</u>	<u>300</u>	<u>0</u>
<u>Ramp Slope</u>	<u>15</u>	<u>0</u>
<u>Move Speeds</u>	<u>300</u>	<u>0</u>
<u>Step Resolution</u>	<u>Full</u>	<u>0</u>

***Note - This value has been calibrated specifically for your unit, you will find this value on the underside of the unit.**

M-2500	<u>X-Axis</u>	<u>Y-Axis</u>
<u>Steps per Rev</u>	<u>20000</u>	<u>20000</u>
<u>Intial Velocity</u>	<u>100</u>	<u>100</u>
<u>Slew Velocity</u>	<u>500</u>	<u>300</u>
<u>Ramp Slope</u>	<u>10</u>	<u>10</u>
<u>Move Speeds</u>	<u>500</u>	<u>300</u>
<u>Step Resolution</u>	<u>Full</u>	

EMCee WAS WORKING THE LAST TIME I USED IT, BUT NOW THE CONTROLLER IS NOT RESPONDING?

If you have been using eMCee successfully but are now having communication problems, you should try discarding eMCee's preferences.

For Macintosh users: open your System Folder, open the Preferences folder and locate eMCee's preference file, discard the file.

For PC users: the preference file for eMCee is in the same folder as the application, discard the file. Once you have discarded the preferences, you will need to restore the preferences for your specific Kaidan model.

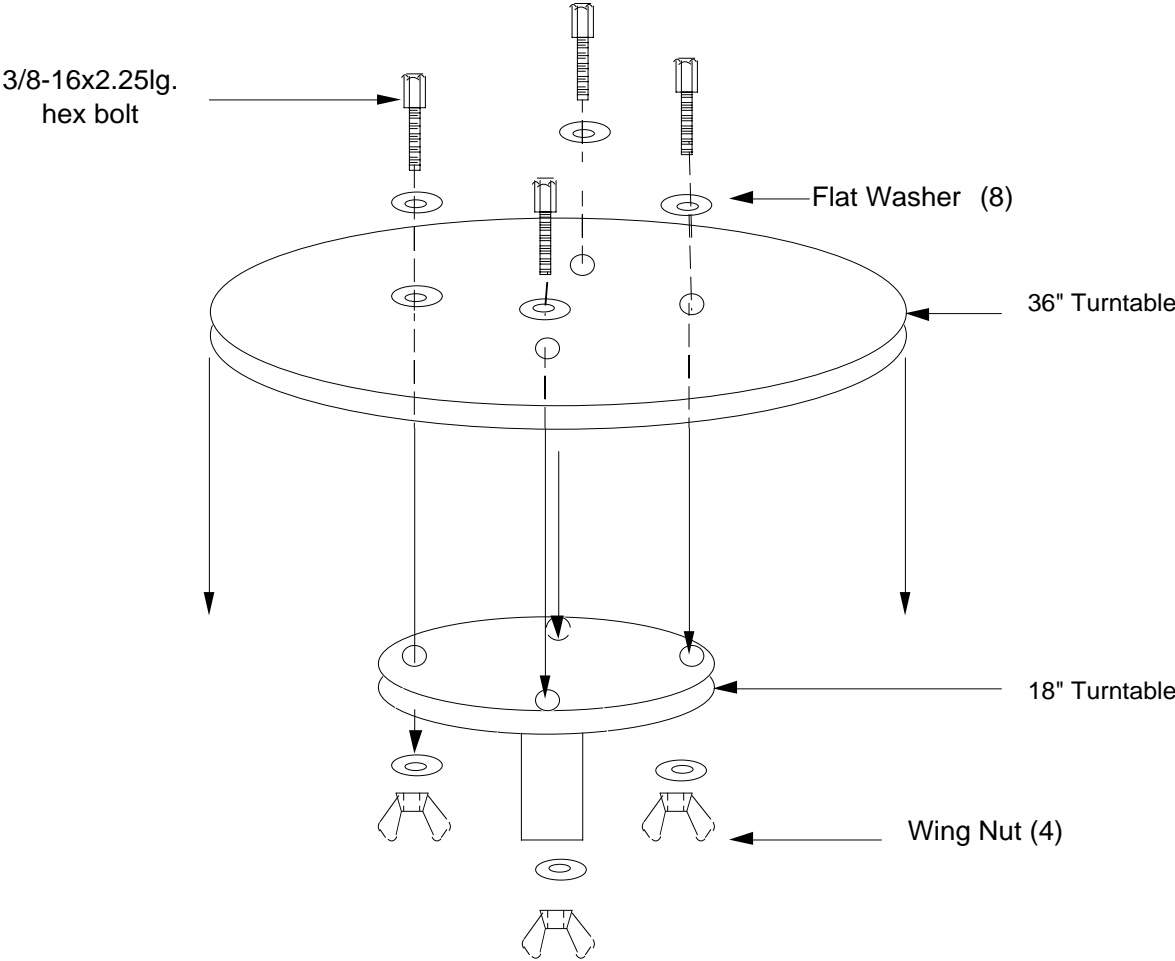
I HAVE DONE EVERYTHING BUT EMCee CANNOT SEE THE CONTROLLER?

If you have read through this appendix and have not a solution to your problem, please email: support@kaidan.com or call 215-364-1778 Mon-Fri 9am to 6pm EST.

Sincerely,

The Kaidan Support Team

36" TURNTABLE ASSEMBLY INSTRUCTIONS



IN ORDER TO USE THE 36" TURNTABLE, IT MUST BE BOLTED TO THE 18" TURNTABLE AS SHOWN ABOVE IN FOUR PLACES, USING THE (4) 3/8-16 X 2.25 LG. HEX BOLT, (8) 3/8" SAE WASHERS AND (4) 3/8" WING NUTS.